

ALASKA'S CENTER FOR ARCTIC POLICY

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ALASKA'S CENTER FOR ARCTIC POLICY

CONVENING CONVERSATIONS

DEVELOPING STRATEGIES

IMPROVING QUALITY OF LIFE

INFORMING PUBLIC OPINION



High Arctic



42.6%
of calories from
traditional foods
for Alaska Natives
60 and older



3594
miles from
Washington DC
to Prudhoe Bay



8 trillion
cubic feet of
natural gas at
Point Thomson



76.4%
of the residents
in the region
are Iñupiat



Arctic



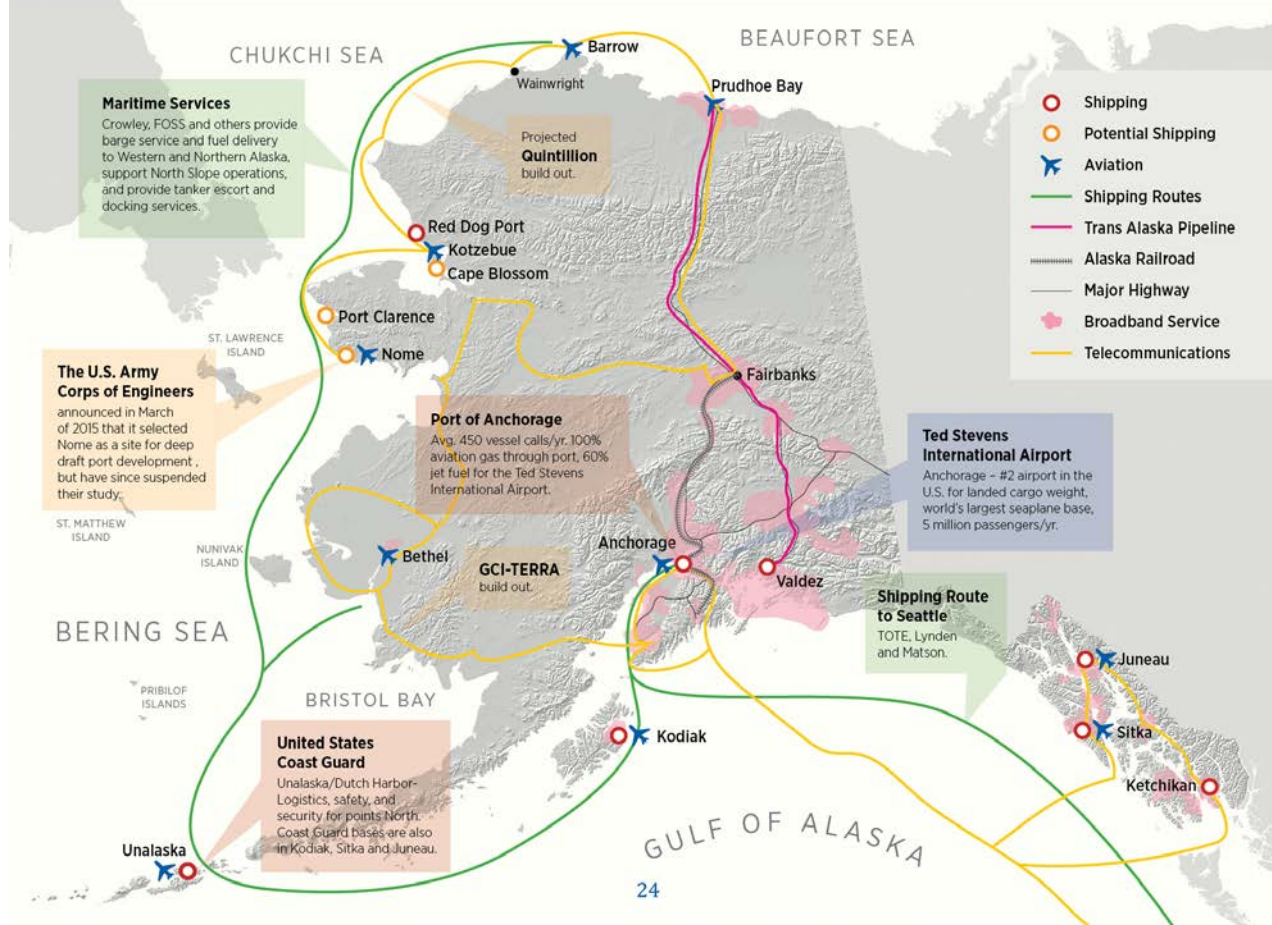
Low Arctic



Near Arctic

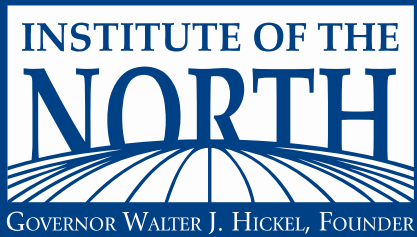


Key Infrastructure



Safety and Response





ARCTIC RENEWABLE ENERGY ATLAS



DELIVERABLES

AREA enhances knowledge of the best practices and local adoption of renewable energy within the Arctic region by sharing via <http://arcticrenewableenergy.org/>:

- **Renewable Energy Atlas** – including Wind, Hydro, Solar Thermal, Geothermal, Biomass, Tidal
- Community Energy Production, Consumption and Efficiency **Database**
- **Best Practices Guide** for Remote Community Renewable Energy Integration and Efficiency
- **Community Energy Stories** – Videos profiling local energy projects, challenges and opportunities



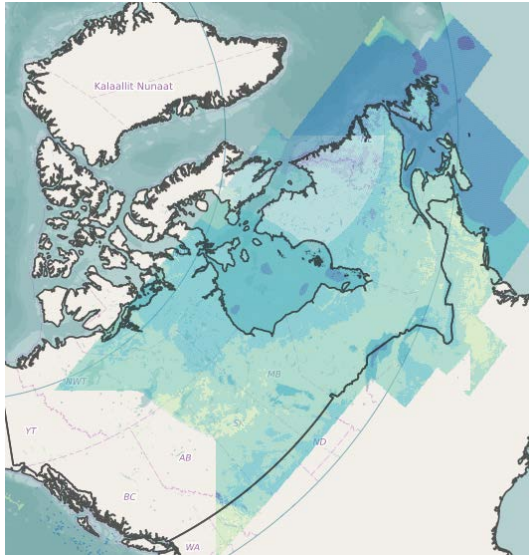
PARTNERS

Data Collection

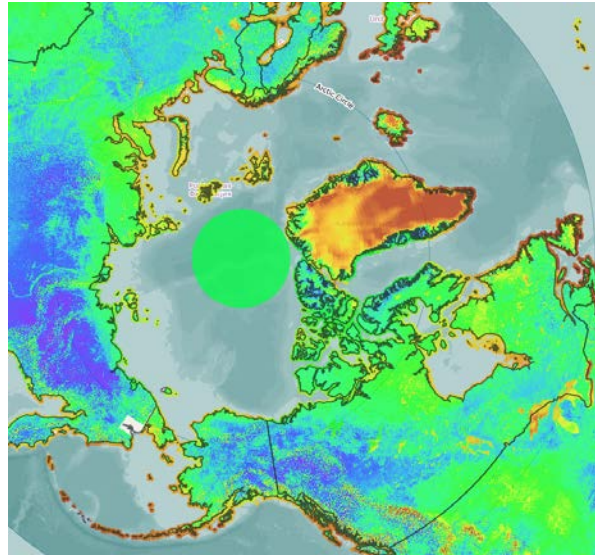
- IRENA – secured
- NREL – secured
- NRCan - secured
- Arctic Fulbright – to come
- University of Northern Iowa – secured, not mapped
- Nukissiorfiit - coming
- Statistics Greenland - coming
- Statistics Finland – TBD
- Sweden Ministry of Energy
- Energimyndigheten - forthcoming
- Orkustofnun - secured
- Landsvirkjun - forthcoming
- University of Tromso – TBD



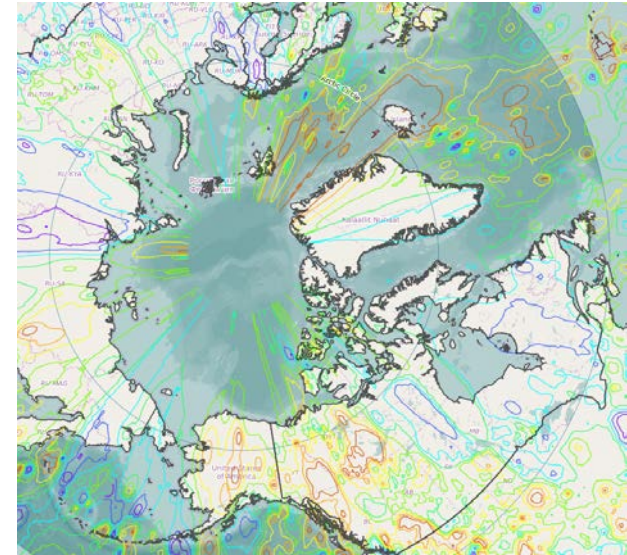
AREA - <https://maps.nrel.gov/area-atlas/>



Canada - Wind Power Density
(W/m sq)

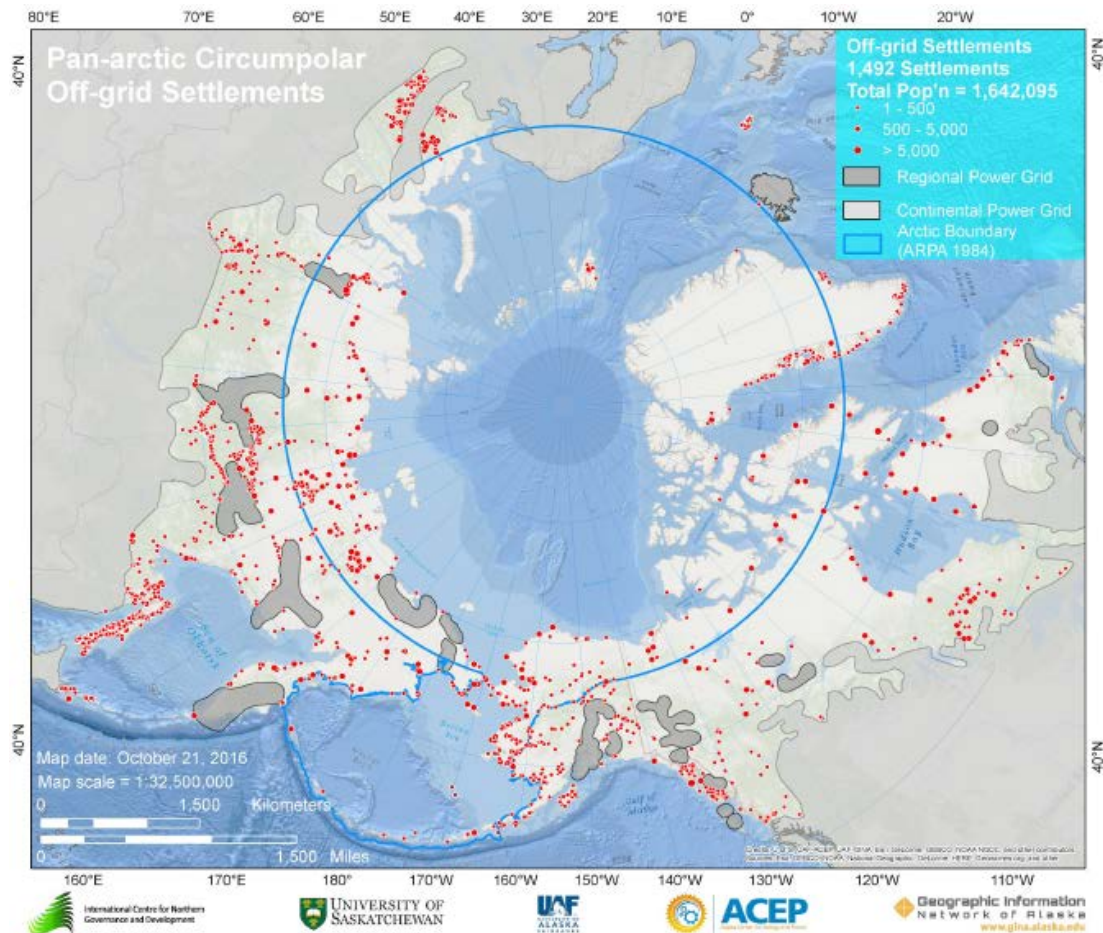


IRENA - Wind Power Density
(W/m2) 50 meters



IRENA – Geothermal
2015 Heatflow Contours

DATA - OPPORTUNITY



NEXT STEPS



- **Technical Scoping and Data Acquisition**
 - Expanded team with monthly calls to facilitate information sharing and agreement
- **Data Visualization**
 - Agreement on mechanism and host
- **Funding**
 - Applications to Nordic Council of Ministers
 - Foundation funding applications for Community Energy Stories
- Add value to other SDWG projects – ARENA and AES
- In-kind and **subject matter contributions** to the
 - Best Practice Guide



Hosted by the Institute of the North and
the Finnish Ministry of Economy and Employment



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2017 Arctic Energy Summit

Arctic as a Leader in Renewable Energy Development, Knowledge
and Expertise

18-20 September 2017 • Finlandia Hall • Helsinki, Finland

Hosted by Institute of the North and Finland Ministry of Economy and Employment

REGISTER

Plenary Sessions



- International Energy Outlook
- Progress on COP 21 Goals
- Sustainable Development Goals
- Addressing Climate Change as an Energy Producing, Consuming and Transporting Region – Ministerial Panel
- Investment Decisions – Nexus of Energy, Climate and Business
- Transportation of Energy Within and Outside the Arctic Region
- Local and Regional Development of Energy Resources

Renewable Energy



- Renewable Energy Policy – Climate, Environment and Affordability
- Integrating Renewables in Communities
- Mobilizing Investments in Clean Energy
- Mapping Renewable Energy Potential and Projects – AREA
- Advances in Renewable Energy Technology

Remote and Off-Grid Communities



- Microgrid Technology Solutions in Remote Communities
- Efficient and Scaled up Loads, M&O of Utility Operations
- Energy Efficiency in Built Environment
- ARENA and Capacity Building
- Climate Change Influenced Building Design and Architecture

Petroleum-Related Activities



- Oil and Gas Regional and Cross-Sector Cooperation
- Carbon Intervention and Mitigation in Energy Extraction
- Socio-Economic Spillover Effects of Energy Industries
- Comparative Oil and Gas Standards and Guidelines
- Technological and Process Innovation for HSE

Cross-Cutting Themes

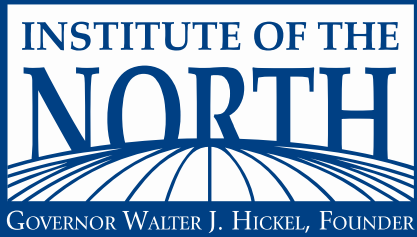


- Consultation and Stakeholder Engagement
- Benefit Sharing Agreements
- Analysis of Environmental Impact Assessments
- Food Security and Energy Development

Outcomes



- Summary Report reviewing and encouraging consideration of
 - Best Practices
 - Potential Projects
 - Research Gaps
- Strategic Planning
 - Affordability within Northern Communities
 - Renewables Policy and Funding
 - Oil, Gas and Climate



PPR IN SMALL COMMUNITIES



PROJECT OUTCOMES



- Greater awareness of risk and preparedness at a local level, and access to best practices
- The ability for national governments to address misperception or lack of awareness
- The identification of gaps in preparedness relative to risk

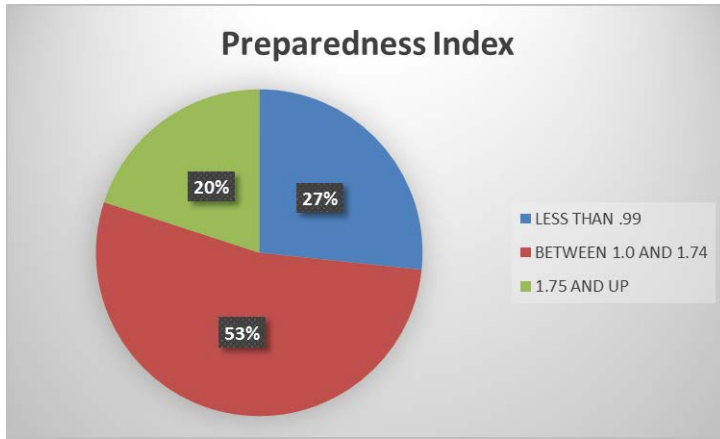
SURVEY DEMOGRAPHICS



- 350 communities under 15,000 people and/or significantly distant (120 miles) from response centers
- Local government and/or emergency response officials
- Across all eight Arctic States, within the geographic boundaries as defined by each
- Facilitated by Permanent Participants as appropriate or possible, as well as all States
- 88 question survey to assess planning, training, impact, risk, equipment

EARLY DATA RESULTS

Evaluation of Preparedness



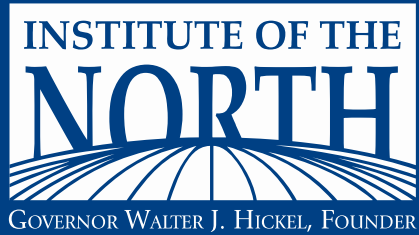
Preparedness/Risk = most communities have modest degree of preparedness relative to the risk they face



2.78	Akutan
0.95	Kotzebue
0.05	Hooper Bay
1.02	Bethel
0.63	Kivalina
0.62	Holy Cross
1.41	Huslia
2.29	White Mountain
1.77	Longyearbyen, Svalbard
0.53	Russian Mission
1.22	Fort Yukon
1.54	Bronnoy
1.50	Sarkkosen
0.75	Newhalen
1.63	Nome
1.34	Kake
1.41	False Pass
0.40	Atka
1.29	Yakutat
1.37	Seward
1.43	Huslia
1.90	Skagway
1.79	White Mountain
1.72	Petersburg
1.33	Denali Borough
0.29	Aniak
2.15	Tenakee Springs
1.34	Homer
1.10	Seldovia
1.51	Lenvik brannvesen
0.62	Sitka
1.53	Homer
1.76	Fairbanks
1.16	Wasilla
2.95	Tununak
1.94	Noatak
1.40	Rampart
1.26	Thome Bay
1.15	Nenana
0.69	Whali
0.19	Hooper Bay

Data Visualization





OTHER

Northern Forum

- Alaska membership

Council of Northern Regional Governments

Alaska Arctic Council Host Committee

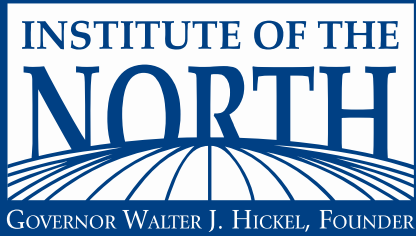
- Week of the Arctic

Arctic Council

- Environmental Impact Assessment
- PPR in Small Communities

Arctic Business Directory

Task Force on Norway-Alaska Cooperation



THANK YOU

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